TMIP-J

Electronic Health Records and Technology on the Battlefield Helping Troops

Claude Hines, Jr., COL, USA, MS
February 27, 2007

Agenda

» **System Overview**

» **Challenges and Solutions**

» **System Interoperability**

» **Software Demonstration**

» **Potential Civilian Applicability**

Mission

Provide an integrated suite of automated medical information management solutions to support the theater medical business practice

TMIP-J Mission Pillars

Electronic Health Record

Command & Control

Medical Logistics

Patient Movement

Legislation

"…every Soldier, Sailor, Airman and Marine will have a comprehensive, life-long medical record…"

Source: Special report of the Presidential Advisory Committee on Gulf War Veterans' Illness, 1997

"The Secretary of Defense shall establish a system to assess the medical condition of members of the armed forces…who are deployed."

Title 10; Section 1074f (1997): Medical tracking system for members deployed overseas

"When available, TMIP tools will be used to capture inpatient and outpatient encounters."

ASD(HA) memo; 2005; Expanded use of automated medical data collection and patient tracking applications
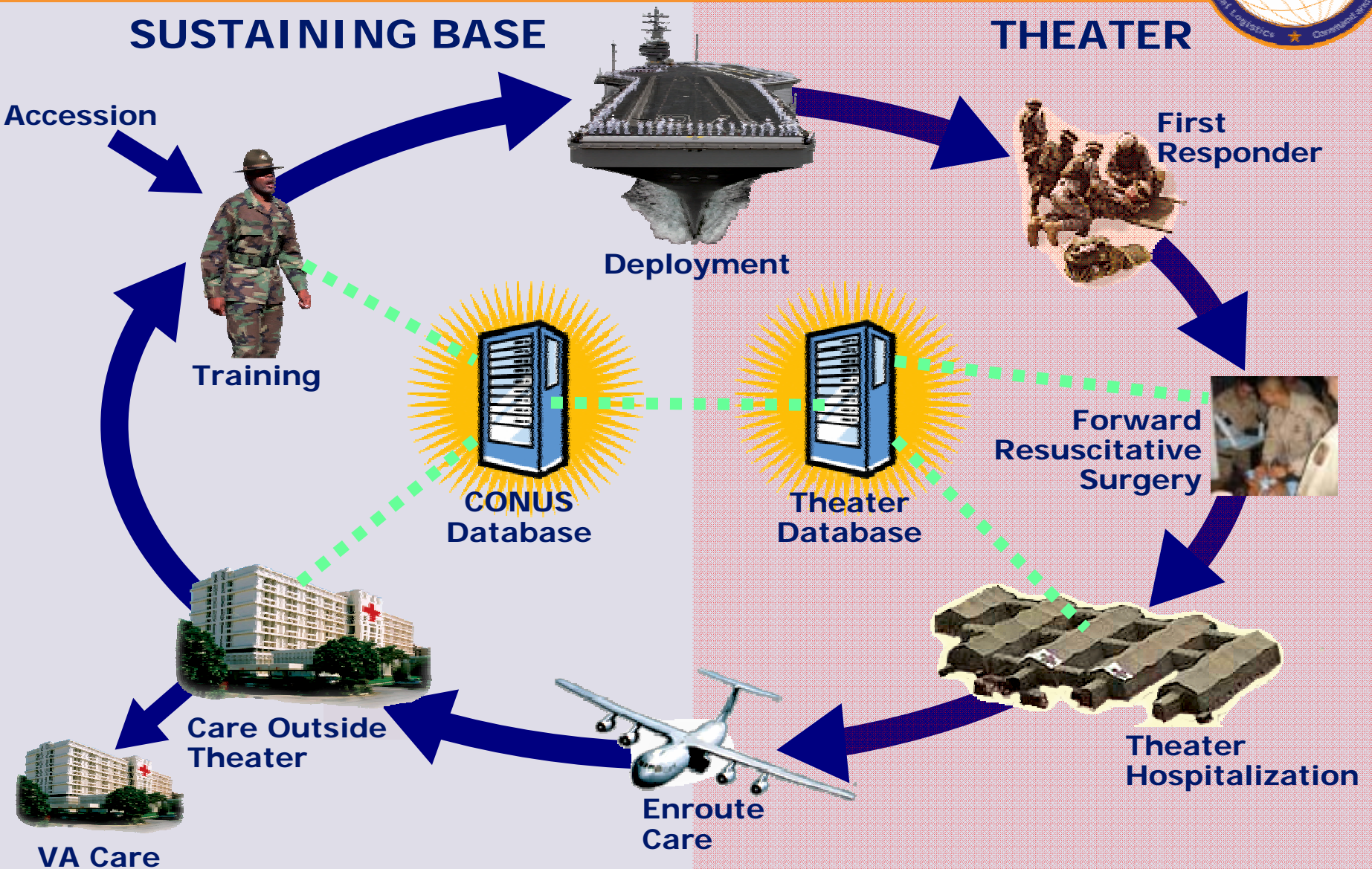
Historical Challenges

- » **No electronic record input from theater**
- » **Limited visibility of medical logistics and blood status**
- » **No visibility of patient tracking within theater**
- » **Minimal or no telecommunications infrastructure**
- » **No integration between theater and sustaining base applications**
- » **No capability to electronically aggregate data for medical situational awareness and surveillance**

Technical Solutions

» **Electronic patient care documentation**

» **Medical logistics and blood management**

» **Similar functionality between theater and sustaining base**

» **Casualty tracking**

» **Operates in austere communication environments**

» **Medical planning, surveillance, and Command & Control**

» **Scalable, flexible and portable**

Continuum of Care

SUSTAINING BASE

THEATER

Accession

Training

Deployment

CONUS Database

Theater Database

First Responder

Forward Resuscitative Surgery

Theater Hospitalization

Enroute Care

Care Outside Theater

VA Care

Theater Complement to MHS

Sustaining Base

- » The Military's longitudinal electronic health record
- » Robust communications infrastructure
- » Medical logistics
- » Environmental health
- » Other sustaining base systems
- » Large footprint

Theater

- » Operates in austere communications environments
- » One system of record
- » Portable, modular
- » Medical surveillance
- » Logistics and patient movement visibility
- » Provides theater data to the Military's electronic health record

Analogy

Integration

Developmental Partners

Clinical Information Technology Program Office (CITPO)	Telemedicine & Advanced Technology Research Center (TATRC)	Theater Medical Information Program - Joint (TMIP-J)	Resource Information Technology Program Office (RITPO)	Defense Medical Logistics Standard Support (DMLSS)	United States Transportation Command (USTRANSCOM)	Other Partners

Applications

AHLTA Theater CHCS NT AHLTA Warrior	AHLTA Mobile TeleHealth	JMeWS JMAT JTTR	CHCS CACHÉ DOEHRS JPTA	DCAM PMITS TEWLS DMLSS T-DBSS	TRAC2ES	SAMS GEMS

Electronic Health Record

Command & Control

Medical Logistics

Patient Movement

Theater Medical Information Program

Military Infrastructure Programs

Deploying the Theater Medical Information Program - Joint Software Suite
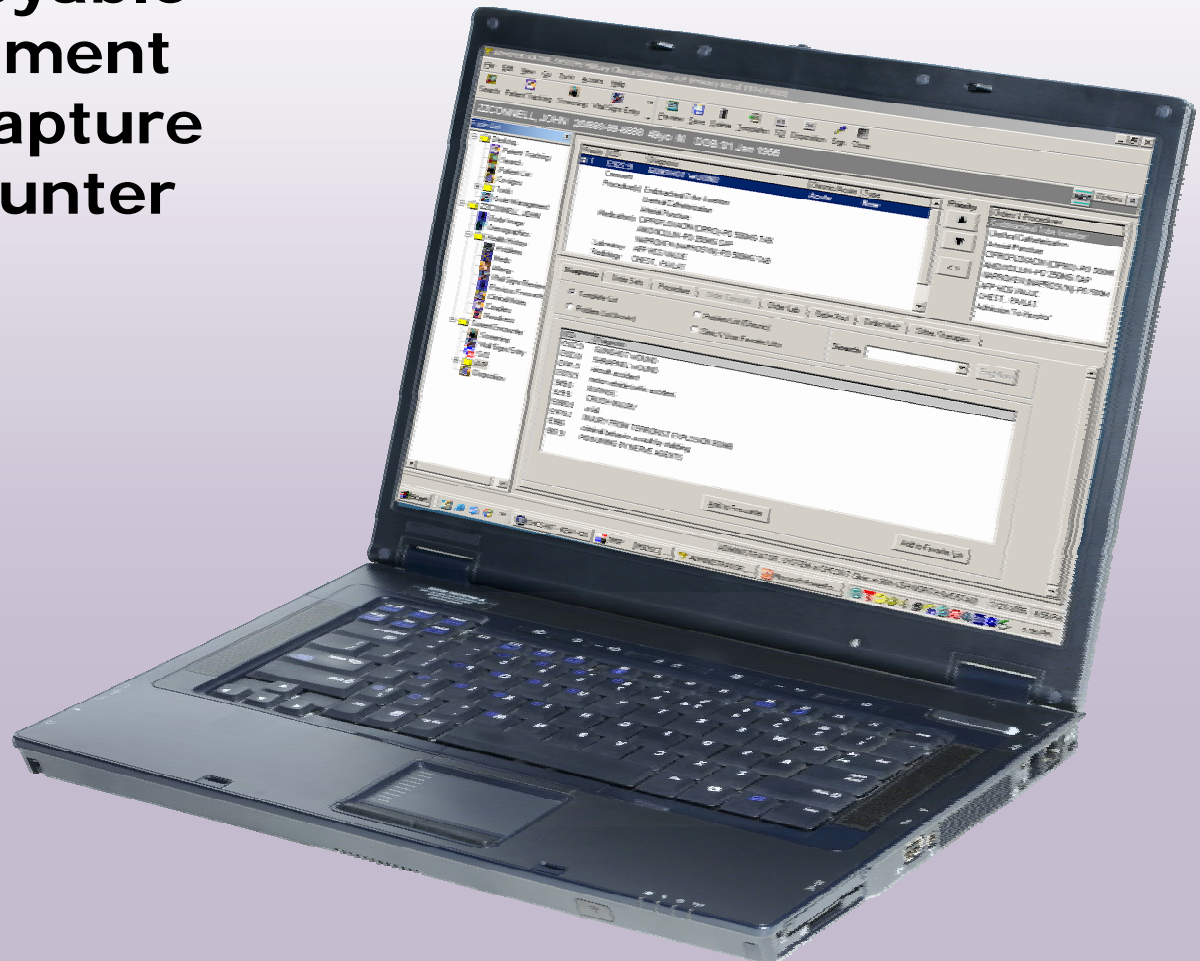
AHLTA Mobile

» **First responder application for a handheld device**

AHLTA Theater

» **Used in deployable medical treatment facilities to capture medical encounter data**

Joint Medical Work Station

» **Application for medical situational awareness and surveillance in support of Command & Control**
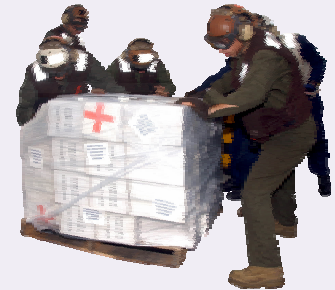
Other Applications

Defense Medical Logistics Standard Support (DMLSS) Customer Assistance Module (DCAM)

> **Web-based tool for replenishing medical supplies**

Patient Movement Items Tracking System (PMITS)

> **Tracks medical equipment that travels with evacuated patients**

Medical Logistics

Joint Patient Tracking Application (JPTA)

> **Tracks deployed patients' location**

U.S. Transportation Command Regulating and Command & Control Evacuation System (TRAC2ES)

> **Monitors and tracks patients leaving theater via Air Force aero-evacuation (interface)**

Patient Movement

16

Potential Civilian Uses

» **Natural Disaster Support**

» **Humanitarian Assistance**

» **Pandemic Outbreaks**

» **Rural Health Care**

» **Visiting Nurse Service**

» **Public Schools**

Natural Disaster Support

- » **Document care at triage and/or make-shift treatment facilities**

- » **Maintain continuity of care at temporary hospitals and clinics**

- » **Locate and track patients originating from the disaster area**

- » **Monitor status of disease outbreaks and medical services available in disaster areas**

- » **Order medical supplies**

Humanitarian Assistance

» **Document encounters and care provided during the mission**

» **Store and transmit data for statistical reporting and results analysis**

» **Manage available medical services**

» **Order medical supplies**

Pandemic Outbreaks

» **Track patients' location**

» **Document treatment**

» **Easily deployable system**

» **Track severity and density of outbreak(s) within one or more sites**

» **Collect and aggregate data from one or more locations for medical situational awareness and planning**

Rural Health Care

» **Scalable**

» **Operates in low bandwidth conditions**

» **Low maintenance overhead**

» **Maintains local database that can be shared**

» **Flexible configuration to meet patient population and available medical services**

Visiting Nurse Service

- » **Patient's documentation at point-of-care**
  - ▫ **History**
  - ▫ **Progress**
  - ▫ **Medication**
- » **Mobile application that can share data**
- » **Physicians have electronic visibility of documented care from the visiting nurse service**
- » **Data can be shared with medical facilities, other physicians and nurses**

Public Schools

- » **Maintain portable student health records**

- » **Document treatment given at schools**

- » **Track physicals, immunizations, illnesses, medications and allergies**

- » **Share medical data for disease trend analysis**

Wrap Up

» **Theater complement to the Military's electronic health record**

» **Addresses medical information management challenges in theater**

» **Operates in austere environments**

» **Scalable, portable, global, tactical**

Supporting the Military's deployed medical community

Questions

?

For more information or to see a live demo, stop by our booth: 7501.